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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,115	11/19/2003	Constantine Sandu	703451-2001	7326

7590 09/24/2008  
Bingham McCutchen LLP  
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EXAMINER
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BECKER, DREW E

ART UNIT	PAPER NUMBER
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1794

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09/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,115	<b>Applicant(s)</b> SANDU, CONSTANTINE	
	<b>Examiner</b> Drew E. Becker	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/25/06; 1/2/04</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 59-81, directed to the process of using the apparatus, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on 5/22/08 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-81, particularly claim 50, are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30, particularly claims 11-15 and 26-30, of U.S. Patent No. 6,675,877. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to include a passage for the food product in the rotor of '877 since otherwise there would be a nearly complete blockage of the food from advancing further within the heat exchanger.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3, 48-49, 66, and 73-75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 3 recites "wherein a pair of electromagnetic elements." It is not clear a portion of the claim is missing. It is not clear what this phrase refers to.

7. Claims 48-49 recite the limitation "the one or more solenoids". There is insufficient antecedent basis for this limitation in the claims.
8. Claim 66 recites "wherein the rotor comprises a in a non-drive end of the heat exchanger". It is not clear a portion of the claim is missing. It is not clear what this phrase refers to.
9. Claims 73-75 recite the limitations "the generally conical end member", "the first inner member", "the second inner member", and "the third inner member". There is insufficient antecedent basis for this limitation in the claim. It appears that claims 73-75 should depend from claim 72, rather than claim 70.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

11. Claims 1-14, 21-23, 26, 28-29, 33-50, 52-53, 55-71, and 77-81 are rejected under 35 U.S.C. 102(a) as being anticipated by Sandu et al [US 2003/0042007A1]. Sandu et al teach a scraped-surface heat exchanger for processing food comprising a cylindrical stator with electromagnets (Figures 3-4, #80-81), a cylindrical rotor attached to the shaft and having an inner cavity for food flow (Figures 3-5, #36, 82, 87), a sensor for detecting the position of the rotor (Figure 3,#76), a control circuit which monitors the position of the rotor via the sensor and changes a state of the stator electromagnets to

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radially adjust the rotor (paragraphs 0062-0064), the stator having eight electromagnets arrayed in adjacent and non-adjacent pairs which activated and deactivated by the control circuit (Figures 3-4, #81; paragraph 0035), the electromagnets being solenoids (paragraph 0035), the outer surface of the stator being a stainless steel housing (paragraph 0035), the rotor having a permanent magnetic core (Figures 3-5, #84), axial adjustment (paragraph 0031), an axial support member attached to the rotor at a non-drive end of the device (Figure 3, #68), a gear or drive box at the other end (Figure 2, #24; paragraph 0052), a support bearing (Figure 3, #30), adjustment of the drive end via a magnetic rotor (paragraph 0051), a second support bearing (Figure 7, #32), and a gap between the rotor and stator (Figure 3, #80 & 82).

***Allowable Subject Matter***

12. Claims 15-20, 24-25, 30-32, 51, 54, 72, and 76 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 73-75 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: the apparatus of dependent claims 15-20 define over the prior art of record because the prior art does not teach, suggest, nor render obvious the rotor having an

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end member, a first annular member proximate the end member, a second annular member proximate the first annular member, and the inner cavity extending through the first and second annular members;

the apparatus of dependent claims 24-25 define over the prior art of record because the prior art does not teach, suggest, nor render obvious the rotor having an end cap, a first annular member proximate the end cap, a second annular member proximate the first annular member, and the first annular member resting on the support bearing;

the apparatus of dependent claims 30-31 define over the prior art of record because the prior art does not teach, suggest, nor render obvious the cylindrical member being corrugated and defining a plurality of channels for food flow;

the apparatus of dependent claim 32 defines over the prior art of record because the prior art does not teach, suggest, nor render obvious the rotor having an end member, a first annular member proximate the end member, a second annular member proximate the first annular member, and the cylindrical member placed around the second annular member;

the apparatus of dependent claim 51 defines over the prior art of record because the prior art does not teach, suggest, nor render obvious the rotor having a generally conical end member, a first annular member proximate the end member, a second annular member proximate the first annular member, a third annular member proximate the second annular member, and the inner cavity extending through the first, second, and third annular members;

the apparatus of dependent claim 54 defines over the prior art of record because the prior art does not teach, suggest, nor render obvious a corrugated member surrounding the rotor wherein the food product passes between the inner surface of the corrugated member and an outer surface of the rotor;

the method of dependent claims 72-75 defines over the prior art of record because the prior art does not teach, suggest, nor render obvious the rotor having a generally conical end member, a first annular member proximate the end member, a second annular member proximate the first annular member, a third annular member proximate the second annular member, and the inner cavity extending through the first, second, and third annular members

the method of dependent claim 76 defines over the prior art of record because the prior art does not teach, suggest, nor render obvious expelling the food product through an aperture defined between a top surface of the rotor and an interior surface of a corrugated enclosure surrounding a portion of the rotor.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tomasek [Pat. No. 4,888,509], Samples [Pat. No. 2,995,346], Faxon [Pat. No. 3,568,030], Hisey [Pat. No. 6,133,656], Oltman [Pat. No. 5,224,835], Cheshmehdoost et al [Pat. No. 6,912,922], Kellogg et al [Pat. No. 7,095,193], SU 1160277A, Drumheller [Pat. No. 5,823,261], Nordin [Pat. No. 5,143,738], Baker [Pat. No. 2,514,116], and Hulvey et al [Pat. No. 3,839,085] teach devices and methods for processing materials.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew E. Becker whose telephone number is 571-272-1396. The examiner can normally be reached on Mon.-Fri. 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Drew E Becker/  
Primary Examiner, Art Unit 1794